

VIRCO, Inc.

Docket 205-198

Heartwood #1-HW

exception location



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE REQUEST BY VIKING
INTERNATIONAL RESOURCES COMPANY, INC.
FOR AN EXCEPTION LOCATION REGARDING
THE DRILLING OF THE PROPOSED WELL
IDENTIFIED AS THE HEARTWOOD FORESTLAND
#1-HW TO BE LOCATED IN MURPHY DISTRICT,
HARRISON COUNTY, WEST VIRGINIA.

DOCKET NO. 205-198
ORDER NO. 1

REPORT OF THE COMMISSION

This cause came before the Oil and Gas Conservation Commission ("Commission") on September 15, 2009, in the Department of Environmental Protection Conference Room, Charleston, West Virginia after giving notice as required by law, at the request of Viking International Resources Company, Inc., ("VIRCO"), on the application seeking approval for exception to Operational Rule 39-1.4.2, for the drilling of one proposed well identified as Heartwood Forestland #1-HW. VIRCO proposes to drill 80' below the top of the Onondaga formation. The proposed location does not meet the spacing requirement imposed on deep wells; therefore, VIRCO has requested approval from the Commission for exception to rule 39-1.4.2. Present for VIRCO were Rick Zickefoose and Tom Palmer. No opposing or noticed parties made an appearance.

The Commission heard testimony from two witnesses, being Rick Zickefoose, and Tom Palmer, on behalf of VIRCO. The testimony included information that the proposed Heartwood Forestland #1-HW will be less than 3000' from a previously drilled deep well, Coyle 6. Testimony further provided that the previously drilled well has its deepest perforation five feet from the top of the Onondaga formation. Testimony also included proof of notification to all parties required by law.

Following the testimony, there being no other witnesses or parties interested in or affected by the application present, the Board voted on and thereupon convened an executive session. After breaking from executive session, a Motion was made by a member of the Commission to grant the exception for proposed well Heartwood Forestland #1-HW to be drilled 100' below the top of the Onondaga formation, into the Huntersville Chert formation. The Motion was properly seconded. There being no objection, to the Motion, a vote was taken. There being two ayes, and no nays, with the chair abstaining and two members absent and not voting, the Motion carried, and the permit was granted.

Thereupon, the Commission makes the following Findings of Fact and Conclusions of Law:

Promoting a healthy environment.

FINDINGS OF FACT

1. Members of the Commission present were James Martin, Robert Radabaugh, and Anthony Gum.
2. The applicant is an operator within the meaning paragraph (4) subsection (a) of the West Virginia Code 22C-9-2.
3. VIRCO wishes to drill the proposed well to reach the bottom of the Marcellus formation, total depth in the Huntersville Chert formation, which is more than 20' below the top of the Onondaga group. The Marcellus shale formation lies directly above the Onondaga limestone formation. VIRCO intends to drill 100' below the Marcellus formation, drilling completely through the Onondaga formation and into the Huntersville Chert formation, for a total of 100', for rat hole purposes. Applicant's witness testified that 100' is necessary to fully log the Marcellus formation. The 100' of rat hole will allow the applicant to get logging tools, casing, tubing and perforating tools to sufficient depth below the pay zone.
4. The proposed well is to be drilled as a deep well as it will penetrate deeper than 20' below the top of the Onondaga group as defined by West Virginia Code 22C-9-2.
5. The witness testified that at no time will the Onondaga, or any formation below the Onondaga, be perforated, produced from, or stimulated in any way by the proposed well.
6. The location of the proposed well was chosen due to the topography and the geology of the potential producing formation.
7. The proposed location of the well is within 3000' of another deep well, Coyle 6 and therefore, exceptions to rule 39-1.4.2 are required.
8. The witness testified that Coyle 6 has the lowest perforation at a depth of 5' above the Onondaga.
9. The witness testified that there are no other deep wells within 3,000 of the proposed locations.
10. A Motion was made, and properly seconded, to grant VIRCO's application for the exception to the spacing requirements.
11. The Commission voted upon the Motion, with it passing unanimously.

CONCLUSIONS OF LAW

1. That due notice of time, place and purpose of the hearing has been given in all respects as required by law.
2. That Operational rule 39-1.4.2 requires that all deep wells drilled shall be not less than 3,000 feet from a deep well drilling to or capable of producing hydrocarbons from the objective pool of the deep well and that each well be no less than 400' from a lease or unit boundary, and that Operational rule 39-1.4.3 allows for an exception to Operational rule 39-1.4.2.
3. That pursuant to Chapter 22C, Article 9, Code of West Virginia, as amended, the Commission has jurisdiction over the subject matter embraced in said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order, and that a quorum of the Commission was present at the hearing.
4. That Coyle 6 should still be considered a deep well by this Commission. W. Va.. Code 22C-9-2.
5. That in order to grant the drilling permits for the proposed well, exceptions must be granted to the spacing requirements. W. Va. Code R. §39-1-4.2
6. The applied for exceptions are necessary to prevent waste. W.Va. Code §22C-9-7(6), W. Va. Code R. §39-1-4.2

ORDER

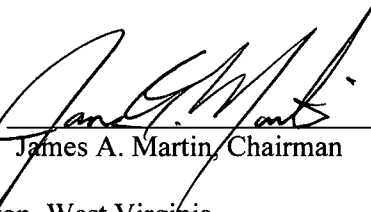
Therefore, based on the Findings of Fact and Conclusions of Law, the West Virginia Oil and Gas Conservation Commission grants the applied for exception to rule 39-1.4.2 to VIRCO for the drilling of proposed well Heartwood Forestland #1-HW well to be within 3000' of the existing Coyle 6 well, and to drill 100' below the top of the Onondaga formation, ending in the Huntersville Chert. Furthermore, VIRCO will furnish to the Commission an amended WW-2B attachment showing the target formation as the Huntersville Chert. Further, VIRCO is to furnish a copy of the bond log and perforating log within

thirty days of the completion of the proposed well. In addition, VIRCO shall submit an affidavit signed by a principal of the company stating that the well was not and will not at any time in the future be produced, perforated or stimulated in any manner in a formation below the top of the Onondaga formation.

IN THE NAME OF THE STATE OF WEST VIRGINIA

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA

By:

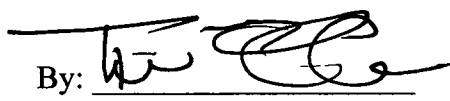
A handwritten signature in dark ink, appearing to read "James A. Martin", is written over a horizontal line.

James A. Martin, Chairman

Dated this 3rd day of November, 2009, at Charleston, West Virginia.

Affidavit

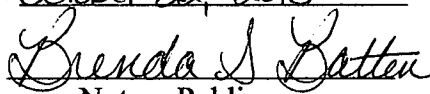
I, Thomas G. Palmer (President of Viking International Resources Co.) do hereby swear and report to the WV Oil and Gas Conservation Commission there are no perforations, stimulation performed or production below the Onondaga concerning the Heartwood Forestland #1HW in Murphy District of Ritchie County, West Virginia.

By: 
Thomas G. Palmer, President

State of Ohio
County of Washington, TO-WIT:

The foregoing affidavit was acknowledged before me the 21st day of July, 2010 by Thomas G. Palmer as President of Viking International Resources Co., a Delaware corporation, on behalf of the corporation.

My commission expires: October 22, 2013


Notary Public



BRENDA S. BATTEN
Notary Public, State of Ohio
My Commission Expires Oct. 22, 2013

BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA

IN THE MATTER OF THE REQUEST BY
VIKING INTERNATIONAL RESOURCES
COMPANY, INC. FOR AN EXCEPTION
LOCATION REGARDING THE DRILLING OF
THE PROPOSED WELL IDENTIFIED AS THE
HEARTWOOD FORESTLAND #1-HW TO BE
LOCATED IN MURPHY DISTRICT, RITCHIE
COUNTY, WEST VIRGINIA.

DOCKET NO. 205
CAUSE NO. 198

TRANSCRIPT OF PROCEEDINGS had or testimony
adduced in the above-entitled matter, on the 15th day of
September, 2009, commencing at 10:06 a.m. and concluding at
10:50 a.m., at the Office of the Department of
Environmental Protection, 601 57th Street, S.E.,
Charleston, Kanawha County, West Virginia, pursuant to
notice to all interested parties.

BEFORE: JAMES MARTIN, Chairman
ANTHONY GUM, Member
ROBERT RADABAUGH, Member
STACY DELONG, Counsel
CINDY RAINES, Staff

ORIGINAL

NANCY MCNEALY
CERTIFIED COURT REPORTER
Post Office Box 13415
Charleston, West Virginia 25360-0415
(304) 988-2873 FAX (304) 988-1419

APPEARANCES: ON BEHALF OF VIRCO, INC.:

RICK ZICKEFOOSE, Geologist
TOM PALMER

I N D E X

<u>Applicant's Witness:</u>	<u>Direct</u>	<u>Exam</u>
Rick Zickefoose	6	9 (M) / 13 (M) 13 (G)

<u>Commission's Exhibits:</u>	<u>Marked & Received</u>
No. 1, Notice of Hearing	4
No. 2, Letter from Virco, Inc. Of 8/10/09	4
No. 3, Legal Advertisement with Receipts	4
No. 4, Permit Application	4
No. 5, Affidavit of Personal Service	4
No. 6, Cement Bond Log	7
No. 7, WW-2B	7
No. 8, E-mail of 8/12/09 with Map	16

Reporter's Certificate.....Page 20

1 CHAIRMAN MARTIN: Before the Oil and Gas
2 Conservation Commission of the State of West Virginia in
3 the matter of the Request by Viking International Resources
4 Company, Inc. for an Exception Location Regarding the
5 Drilling of the Proposed Well identified as the Heartwood
6 Forestland #1-HW to be located in Murphy District, Ritchie
7 County, West Virginia. This is Docket 205, Cause No. 198.

8 Let the record show members present of
9 Commission, Bob Radabaugh, Tony Gum, James Martin and
10 counsel, Stacy DeLong and from staff, Cindy Raines.

11 Let me place of record a copy of the Notice
12 of the Hearing as Exhibit 1. This is a copy of a request
13 for hearing dated August 10 from Virco, Inc. as Exhibit 2,
14 an E-mail of the Legal Advertisement with the postal
15 receipts as the next exhibit, and a copy of the Permit
16 Application.

17 (WHEREUPON, the Notice of Hearing
18 was marked as Exhibit No. 1; the
19 Letter of August 10, 2009, was
20 marked as Exhibit No. 2; the E-
21 mail of Legal Advertisement and
22 Postal Receipts were marked as
23 Exhibit No. 3; the Permit
24 Application was marked as Exhibit

1 No. 4 and the Affidavit of
2 Personal Service was marked as
3 Exhibit 5 for identification and
4 received in evidence.)

5 CHAIRMAN MARTIN: I'm going to add also as a
6 part of that last exhibit information that has been
7 furnished to the Commission this morning by the Applicant
8 which is a copy of the person service affidavit for this
9 application along with a copy of an e-mail verifying that
10 information. Do we have anything else we need to place of
11 record? With that the Commission will now take
12 appearances.

13 MR. ZICKEFOOSE: Rick, R-i-c-k, last name
14 Zickefoose, Z-i-c-k-e-f-o-o-s-e, with Virco.

15 MR. PALMER: Tom Palmer, P-a-l-m-e-r, with
16 Virco.

17 CHAIRMAN MARTIN: Mr. Zickefoose, if you'd like
18 to go ahead and present your case.

19 MR. ZICKEFOOSE: Yes, what I'd like to present
20 in support of our request for the variance of the 3,000
21 foot ruling --

22 CHAIRMAN MARTIN: Rick, just a minute, let me
23 get you sworn in.

24 MR. ZICKEFOOSE: Oh, okay. I'm sorry.

1 CHAIRMAN MARTIN: That's my fault.

2 (Witness sworn.)

3 THEREUPON

4 R I C K Z I C K E F O O S E

5 called as a witness by Virco, Inc., having been first duly
6 sworn, testified as follows:

7 DIRECT EXAMINATION

8 CHAIRMAN MARTIN: Proceed, sir.

9 THE WITNESS: I'd like to submit two items in
10 support of our request for a variance. The well that our
11 permit request is less than 3,000 foot from is the Coyle
12 No. 6, a Virco well, permit 47-085-9746. This well
13 although being permitted as a deep well was completed as a
14 shallow well and its top perforations are above the
15 Onondaga and its all producing formations are above the
16 Onondaga, so I'd like to submit our bond log and perforated
17 log to the Commission in support of that and although it
18 was drilled under a deep well permit, it is actually a
19 producing shallow well.

20 In addition, I'd like to submit, which was
21 also sent along with the permit, the WW-2B exhibit and I'd
22 like to submit that to you and I would appreciate if the
23 Commission would look at item number 11 on the drilling
24 procedure which indicates that after drilling and logging,

1 we plan on drilling through the Onondaga and just for
2 logging purposes we plan to plug this well back with Class
3 A cement, approximately 300 sacks, 4,900 feet.

4 Upon curing of the cement, we plan to go in
5 and drill horizontally into the Marcellus and no longer
6 would be penetrating the Onondaga, thereby rendering this
7 well incapable of producing from deeper formations. Those
8 two items I would like to submit for the Commission's
9 consideration.

10 (WHEREUPON, the Bond Log and
11 WW-2B Exhibit was marked as
12 Exhibit No. 6 and 7 for
13 identification and received
14 in evidence.)

15 MR. GUM: You plan to drill how far into the
16 Onondaga?

17 THE WITNESS: We'd like to drill 150 feet into
18 the Onondaga for logging purposes to make sure -- we plan
19 on running an extensive amount of geophysical logs on this
20 well. The first string will be run in air, then we will
21 fill the hole full of water and run other geophysical
22 logging. Then upon doing these logs, we will run drill
23 pipe back into the hole and cement the well back to 4,900
24 feet. It will be Class A cement, approximately 300 sacks.

1 At that point, upon the cement curing, the surface of the
2 cement will be smoothed up and allow us to whipstock and
3 start our build of our curve into our horizontal completion
4 into the Marcellus. No way should we be able to get into
5 the Onondaga or what's classically considered a deep
6 formation.

7 MR. GUM: Would you go into more explanation why
8 that 150 feet, and we understand that you need more than
9 20, but why a 150?

10 THE WITNESS: Well, what we'd like to do is make
11 sure all the logs because of the length of the tools --

12 MR. GUM: I understand that.

13 THE WITNESS: -- are going to be close to a 100
14 feet and with the length of the tools being as they are and
15 the possibility of having fill-up after you drill the well,
16 we want to make sure we don't have to go back in and clean
17 back out.

18 MR. RADABAUGH: Are these tools any different from
19 what you used in the past, the logging tools?

20 THE WITNESS: There will be tools we've never
21 run before. We will be running down-hole sonics which
22 we've never run before in addition to what they use to call
23 the Appalachian sweep. The tools made to do the
24 geophysical analysis are different than your standard

1 tools. It's called ECS tool which is what we don't
2 normally run in addition to these, the down-hole borehall
3 sonic.

4 MR. RADABAUGH: How thick do you think the
5 Onondaga is there?

6 THE WITNESS: The Onondaga proper is anywhere
7 from 10-to-20 feet of pure limestone and below that you run
8 into a Cherty, Huntersville Chert. We plan on not going
9 any deeper than the Chert on top of the -- below the Chert
10 is the Needmore shale and then the Oriskany and we plan on
11 staying away from the Oriskany for fear of making water.

12 MR. RADABAUGH: How thick do you think that Chert
13 is?

14 THE WITNESS: It's approximately 150 feet. With
15 that, the Chert and the Onondaga together.

16 CHAIRMAN MARTIN: Mr. Zickefoose, can you --
17 first of all, I don't know if you were finished with your
18 prepared remarks or not.

19 THE WITNESS: Yes, I am..

20 **EXAMINATION**

21 BY CHAIRMAN MARTIN:

22 Q Can you address again the Coyle No. 6? I
23 didn't really follow all of that.

24 A The Coyle No. 6 is the well that we are less

1 than 3,000 feet from. Okay, it was permitted as a deep
2 well. It was drilled below the top of the Onondaga for
3 logging purposes. What I submitted to the Commission was a
4 copy of the perforating log and cement bond log and upon
5 viewing that, I think you will agree that what it is
6 currently producing from is from the Marcellus which is
7 above the Onondaga and is not producing classically from
8 any deeper formations. I wanted to submit that in addition
9 to the information concerning the proposed well.

10 Q You've got casing, production casing, all
11 the way to TD?

12 A That's correct. Well, no, it's above TD of
13 the open hole, but yes, that what you see in the log is the
14 TD of the producing casing. It is not all the way to TD of
15 the well itself what was originally drilled.

16 Q How far is the -- this is four and half
17 production casing?

18 A That's correct.

19 Q How far does it go below the top of the
20 Onondaga?

21 A I'd have to look at it. It does go into the
22 Onondaga. If you'd give that back to me, I'll tell you.

23 MS. RAINES: Do you have a well record?

24 THE WITNESS: Excuse me?

1 MS. RAINES: Do you have a well record for
2 this?

3 THE WITNESS: I know it was submitted. I didn't
4 bring one with me. I thought this was -- I can tell you
5 what the top of the Onondaga, what TD is, if you'll give it
6 back to me. The bottom perforation of the well is
7 approximately five feet to the top of the Onondaga.

8 BY CHAIRMAN MARTIN:

9 Q So you've got four and half roughly to TD
10 through the Onondaga section at least I'm looking at three
11 joints here.

12 A That sounds about right.

13 Q And that's cemented, obviously.

14 A That's correct.

15 Q I'm assuming.

16 A That is correct.

17 Q And then the bottom perforation is just, I
18 guess, at the base of the Marcellus?

19 A That's correct. It's roughly from the nice
20 clean Onondaga you're five feet from the top, what you
21 consider classical Onondaga.

22 Q What is -- anything inside the pipe below
23 the perforation?

24 A No. There's tubing above the top perf. The

1 reason being is if we ever decided we had to pump it to
2 keep it from gas locking, the ideal situation is to be able
3 to get your pump below the top of your gas producing zones
4 and that's the reason for the penetration into the
5 Onondaga.

6 Q What's the distance from the lease line?

7 A From what now?

8 Q The lease line.

9 A Oh, you're over 400 feet. I don't know the
10 exact distance but it's over 400 feet. It's greater than
11 400 feet is what the surveyor wrote.

12 Q I mean is it 401; is it 4,000?

13 A I don't have a scale where I can tell you.
14 I know it's in excess of 400 feet.

15 Q So your exception location request is only
16 as relates to Coyle 6?

17 A That's correct.

18 Q It has nothing to do with the lease --

19 A No, sir.

20 Q -- or unit boundary?

21 A No, sir.

22 MR. GUM: And your production from that is a
23 shallow well?

24 THE WITNESS: It's Marcellus, that's correct.

EXAMINATION

BY MR. GUM:

Q This is semantics. You're asking to go a 100 feet, 150 feet into the Onondaga, but there is no 150 feet in the Onondaga. What did you word it such as?

A Oh, what we're asking for in our deep well, which we weren't asking for any limitations as to depth, you know. We want to drill below the top of the Onondaga, what we thought was necessary to properly log the Marcellus and that 150 feet we --

Q Below the Marcellus?

A Yes, sir.

Q That's correct?

A Yes, sir.

EXAMINATION (Continuing)

BY CHAIRMAN MARTIN:

Q What formation are you expecting to TD the well in?

A The pothole?

Q Yes.

A It will be in the Huntersville Chert.

Q Are there in Huntersville Chert production in this area?

A No, sir, not within 3,000 feet.

1 Q Any Onondaga production in this area?

2 A No, sir.

3 Q Just to be clear, no other deep wells within
4 3,000 feet of this location; is that correct?

5 A That's correct.

6 Q Other than the Coyle No. 6?

7 A That's correct.

8 Q And what's the --

9 A There was -- we had a deep well permit and
10 we cancelled it if that does show up on the maps. That's
11 what we considered doing a horizontal well and we cancelled
12 that deep well permit. I can't remember what the number
13 was but that way it cleared up the map within 3,000 feet.

14 Q Is this proposed well on the same lease as
15 the Coyle lease?

16 A No, it's on a Goldin lease and it will be
17 drilled horizontally onto the Coyle lease and we will have
18 -- we have a pooling agreement between the two landowners.

19 Q One thing I'm a little confused about is how
20 much distance that you're expecting below the Onondaga, top
21 of the Onondaga, or if you are asking for any particular
22 footage cause I --

23 A No, I'm not asking for any -- you know, I'm
24 asking for a variance to the -- I'm not asking for any

1 restrictions, you know, because we'd like to drill what we
2 have to drill to get the proper log. We will not go into
3 the Oriskany just simply because the possibility of making
4 water and we don't -- you know, to affect our air-filled
5 logs before we do load the hole with water to run our
6 sonics and various other things, but in the event -- it's
7 always nice to have some rathole in the event that there is
8 some sloughing or filling of the hole that we don't have to
9 go back in and clean it out.

10 Q Well, the reason I guess I'm confused here,
11 your WW2-B exhibit talks about approximately 100 feet and
12 I've also heard a 150 feet, so I'm just curious.

13 A Well, we'll go with what the WW2-B says.

14 Q Mr. Zickefoose, any other testimony or
15 anything you'd like to place of record?

16 A No testimony unless you have more questions.

17 MR. MARTIN: Any questions from the Commission
18 members?

19 MR. GUM: None from me.

20 CHAIRMAN MARTIN: While Mr. Radabaugh is
21 contemplating potential questions, I will follow up on
22 something else.

23 BY CHAIRMAN MARTIN:

24 Q I think you indicated that you had submitted

1 an earlier permit that you cancelled?

2 A Yes, that's correct.

3 Q Was the permit issued and cancelled or was
4 --

5 A It was issued and cancelled.

6 MS. RAINES: They requested it.

7 THE WITNESS: They requested that it be
8 cancelled, that way it was a vertical well.

9 Q This was identified as the Coyle 7?

10 A That's correct.

11 Q And this would have been within 3,000 feet
12 of the --

13 A Of the Heartwood Forest, that's correct.

14 CHAIRMAN MARTIN: I'm going to place these of
15 record too as just collectively as the next exhibit,
16 Exhibit 8.

17 (WHEREUPON, the E-mail of 8-
18 12-09 with Map was marked as
19 Exhibit No. 8 for
20 identification and received
21 in evidenced.)

22 (Witness stands aside.)

23 CHAIRMAN MARTIN: Okay, I think unless there's
24 anything further, we can close the record.

1 (WHEREUPON, a discussion was
2 had off the record, after
3 which the proceedings
4 continued as follows:)

5 CHAIRMAN MARTIN: We're back on. Do I have a
6 motion?

7 MR. GUM: I move we go into executive
8 session to deliberate over the case.

9 CHAIRMAN MARTIN: Second?

10 MR. RADABAUGH: Second.

11 CHAIRMAN MARTIN: Any further discussion? All
12 those in favor?

13 COMMISSION: Aye.

14 CHAIRMAN MARTIN: Opposed? Okay, thank you.
15 If you'd please excuse us for a moment.

16 MR. ZICKEFOOSE: No problem.

17 (WHEREUPON, the Commissioned
18 deliberated, after which the
19 proceedings continued as
20 follows:

21 CHAIRMAN MARTIN: Okay, let's go back on the
22 record. Do I have a motion?

23 MR. RADABAUGH: I'd like to make a motion. I
24 make a motion to grant Virco their request for the

1 exception to the rule to allow for the exception of the
 2 Heartwood Forestland No. 1-HW to be drilled within 3,000
 3 feet of another permitted well; namely, the Coyle No. 6,
 4 also owned by Virco. With this, they need a modification
 5 of Form WW-2B which was submitted with the Permit
 6 Application to show the TD will be in the Huntersville
 7 Chert rather than the Onondaga limestone and they must
 8 submit that new form, modified form, to the Office of Oil
 9 and Gas Conservation Commission.

10 Virco also needs to submit to the Commission
 11 an affidavit signed by an officer of the company stating
 12 that nothing below the top of the Onondaga was perforated,
 13 frac'd or is being produced and supply a copy of the well
 14 log and perforation log to the Commission. If at a later
 15 date, they decide to go back in and perforate, frac or
 16 produce this deeper section, they must appear before the
 17 Commission and request such.

18 MR. GUM: I second that motion.

19 CHAIRMAN MARTIN: Any further discussion? All
 20 those in favor of the motion.

21 COMMISSION: Aye.

22 CHAIRMAN MARTIN: Opposed. Okay, motion
 23 carries. If there's nothing for the record, we will
 24 close. Thank you very much.

(WHEREUPON, the proceeding was concluded.)

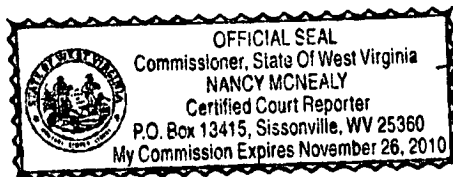
REPORTER'S CERTIFICATE

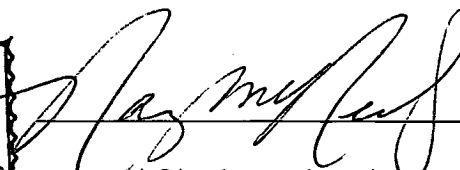
STATE OF WEST VIRGINIA,
COUNTY OF KANAWHA, to wit:

I, **NANCY MCNEALY**, Certified Verbatim Court Reporter and Commissioner of West Virginia, do hereby certify that the foregoing is, to the best of my skill and ability, a true and accurate transcript of all the proceedings as set forth in the caption hereof.

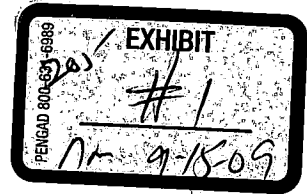
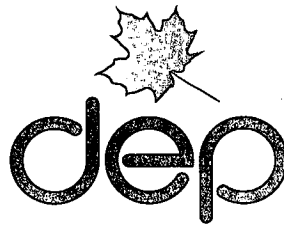
Given under my hand this 29th day of
September, 2009.

My commission expires November 26, 2010.





Certified Verbatim Reporter
Commissioner of West Virginia



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

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INTERNATIONAL RESOURCES COMPANY, INC
FOR AN EXCEPTION LOCATION REGARDING
THE DRILLING OF THE PROPOSED WELL
IDENTIFIED AS THE HEARTWOOD FORESTLAND
#1-HW TO BE LOCATED IN MURPHY DISTRICT,
RITCHIE COUNTY, WEST VIRGINIA.

**DOCKET NO. 205
CAUSE NO. 198**

NOTICE OF HEARING

Viking International Resources Company, Inc. ("VIRCO") has requested the Commission grant an exception to Rule 39.1.4.2 for the proposed well identified as the Heartwood Forestland #1-HW to be located in Murphy District, Ritchie County, West Virginia. The proposed well location does not meet the spacing requirements imposed on deep wells; therefore, VIRCO has requested approval from the Commission for an exception to the rule as provided in 39.1.4.3.

The matter has been scheduled as stated below:

DATE: September 15, 2009

TIME: 10:00 am

PLACE: Department of Environmental Protection
Oil and Gas Conservation Commission
601 57th Street, SE
Charleston, WV 25304

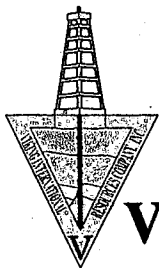
IN THE NAME OF THE STATE OF WEST VIRGINIA

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA

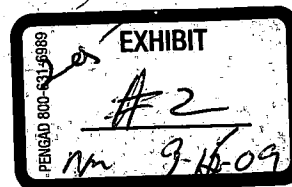
By: Barry K. Lay
Barry K. Lay, Chairman

Dated this 17th of August 2009, at Charleston, West Virginia.

Promoting a healthy environment.



VIRCO, Inc.



08/10/2009

Cindy Raines
Oil and Gas Conservation Commission
601 57th Street
Charleston WV 25304

Re.: Heartwood Forestland #1-HW

Dear Cindy,

I am writing to request a hearing date be established with the Commission concerning VIRCO Inc. Heartwood Forestland #1-HW deep well permit. The well in question will be drilled as a deep well (for geophysical and electric logging purposes) but will be producing from the Marcellus. The Heartwood Forestland #1-HW is located less than 3000' (2,792') from the Coyle #6 well (47-085-9746). This well (Coyle #6) was drilled by VIRCO, Inc. as a deep well but it also is only producing from the Marcellus. VIRCO, Inc. requests a waiver of the 3000' spacing rule

If you need additional information, please contact me at any time.

Sincerely,

Rick Zickefoose
Geologist
VIRCO, Inc.

Raines, Cindy J

To: news@ritchiecountynews.com
Subject: Legal Ad - Notice of Hearing
Attachments: OGCC 205-198.doc

Please print the attached as a Class II legal ad in the newspaper on Wed., Aug. 19 and again on Wed., Aug 25 and send invoice to:

WV Oil and Gas Conservation Commission
601 57th Street, SE
Charleston, WV 25304

Please confirm receipt of this request.

Thank you.
Cindy Raines

OGCC

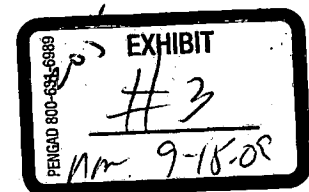
Docket 005-100

Viking International Resources Company, Inc.
Attention: Rick Zickefoose
Post Office Box 100
Reno, OH 45773

91 7108 2133 3936 1623 6264

Heartwood Forestland Fund IV
2911 Emerson Avenue, Suite A
Parkersburg, WV 26104

91 7108 2133 3936 1623 6257



WW - 2B

85-09833-H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator Viking International Resources Company, Inc. 307612 Ritchie Murphy MacFarlan
Operator ID County District Quadrangle

2) Operator's Well Number: Heartwood Forestland # 1-HW 3) Elevation: 910' GL

4) Well Type: (a) Oil X or Gas X
 (b) If Gas: Production X / Underground Storage _____
 Deep X / Shallow _____

5) Producing Formation(s): Marcellus Shale

6) Total Depth: 5900' (TVD) Feet – TMD @ 9000'

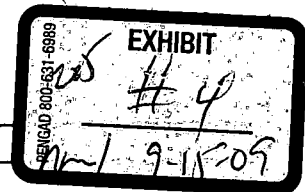
7) Approximate fresh water strata depths: surface – 200'

8) Approximate salt water depths: @ 1000'

9) Approximate coal seam depths: 1200' to 1500'

10) Does land contain coal seams tributary to active mine? No

11) Describe proposed well work (See attached Exhibit)



12) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	16"	L/S	N/A	20'	20'	Driven
Fresh Water	11 3/4"	L/S	32 lb.	300'	300'	Cemented to Surface 271 Cu. Ft.
Coal						<i>8-07-09</i>
Intermediate	8 5/8"	H-40	23 lb.	2000'	2000'	Cemented to Surface 712 Cu. Ft.
Production	4 1/2"	N-80	11.6 lb.	-0-	9000'	Cement back to 4,000' 1,375 Cu. Ft.
Tubing						
Liners						

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Packers: Kind
 Sizes
 Depths Set

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Environmental Protection

#28350
#900

10/3

WW-2A
(Rev. 6-07)

1) Date: July 13, 2009
2) Operator's Well Number
Heartwood Forestland # 1-HW
3) API Well No.: 47 - 085 - 09833-14
State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name Heartwood Forestland Fund IV
Address 2911 Emerson Ave., Suite A
Parkersburg, WV 26104
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector David Cowan
Address Rt. 1, Box 202
Harrisville, W.V. 26362
Telephone (304) 389-3509

5) (a) Coal Operator
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

OR
X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through ____ on the above named parties by:
____ Personal Service (Affidavit attached)
X Certified Mail (Postmarked postal receipt attached)
____ Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Office of Oil & Gas

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WV Department of
Environmental Protection

Subscribed and sworn before me this 14th day of August

Brenda S. Batten
My Commission Expires October 22, 2013

Well Operator
By:
Its:
Address

Telephone

Viking International Resources Company, Inc.

Thomas G. Palmer
President

P.O. Box 100
Reno, Ohio 45773

((740) 373-8385

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Notary Public



BRENDA S. BATTEN
Notary Public, State of Ohio
My Commission Expires Oct. 22, 2013

WW-2A1
(Rev. 8/02)

Operator's Well Number Heartwood Forestland # 1-HW

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that -

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>M. Goldin Lease</u>	Viking International Resources Company, Inc.	1/8	246/368
Tender Equity Corporation (3/17/2008)			
<u>Coyle Lease</u>	Viking International Resources Company, Inc.	1/8	232/586
Triad Energy Corporation Of W.V., Inc. (3/28/2003)			

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Well Operator: Viking International Resources Company, Inc.
By: Thomas G. Palmer
Its: President

[WW-2B Exhibit]

PROPOSED WELL WORK
Heartwood Forestland # 1-HW
 Murphy District, Ritchie County

1. Drill 20" hole to 30 feet.
2. Set 1 joint 16" Conductor Casing.
3. Drill 15" hole to 350 feet.
4. Set 300' of 11 3/4" (32 lb.) surface casing.
5. Cement 11 3/4" casing to surface with 155 sks. Class A cement.
6. Drill 11" hole to 2,050 feet.
7. Set 2,000' of 8 5/8" (23 lb.) Intermediate Casing.
8. Cement 8 5/8" casing to surface with 390 sks. Class A cement.
9. Drill 7 7/8" hole to 5,900' (approx. 100' into the Onondaga Limestone).
10. Run open-hole electric logs.
11. **Plug 7 7/8" hole back to 4,900' with Class A cement (300 sks.) through drillpipe.**
 Let cement cure for 72 hours.
12. **Drill 7 7/8" hole directionally (10° deviation) from 5,000' to intersection with the upper portion of the Marcellus Shale.**
 (Estimated length of curve = 800' - 1,000')
13. **Drill 7 7/8" lateral/horizontal hole 3,000' from the end of the curve in the Marcellus Shale.**
14. Run/Set @ 9,000' of 4 1/2" (11.6 lb. N-80) Production Casing.
15. Cement 4 1/2" casing back to 4,000 feet with 850 sks. of 50/50 poz-mix modified cement. Let cement cure for 5-7 days.
16. Run cased-hole electric logs.
17. Complete multiple stages (4-6) of the horizontal well utilizing frac plugs and frac balls. Each completion stage will consist of 10,000-12,000 bbls. of slick water and 300,000 to 500,000 lbs. of sand.
18. Drill out frac plugs and clean hole to total depth.
19. Flow well back.
20. Place well into production.
21. Haul completion fluids to disposal facility and begin wellsite reclamation.

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NOTE!

The Onondaga Limestone will be penetrated solely for the purpose of running electrical logs through the Marcellus Formation. Once the open-hole logging is completed the wellbore will be cemented back to 4,900' through drillpipe. The Marcellus Formation will then be drilled horizontally.

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 Environmental Protection

WW-2B1

Well No. Heartwood Forestland # 1-HWWest Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

Be advised, you have the right to sample and analyze any water supply at your own expense.

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

<u> X </u>	Contractor Name	<u>Kemron Environmental Services</u>
<u> </u>	Well operator's private laboratory	
Well Operator	<u>Viking International Resources Company, Inc.</u>	
Address	<u>P.O. Box 100</u>	
	<u>Reno, Ohio 45773</u>	
Telephone	<u>(740) 373-8385</u>	

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site please indicate such.

NOTE! There are no domestic water wells within 1000 feet of the proposed wellsite.

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION,
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Viking International Resources Company, Inc. OP Code _____

Watershed South Fork, Hughes River Quadrangle _____

Elevation 910 GL County Ritchie District Murphy

Description of anticipated Pit Waste: Completion Fluids

Will a synthetic liner be used in the pit? Yes

Proposed Disposal Method For Treated Pit Wastes:

- ☒ Land Application
☒ Underground Injection (UIC Permit Number _____)
Reuse (at API Number _____)
Off Site Disposal (Supply form WW-9 for disposal location)
Other (Explain _____)

Proposed Work For Which Pit Will Be Used:

- ☒ Drilling _____ Swabbing _____
Workover _____ Plugging _____
☒ Other (Explain Completion Work and Flowback _____)

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Thomas G. Palmer

Company Official (Typed Name) Thomas G. Palmer

Company Official Title President

Subscribed and sworn before me this 17th day of August, 2009

Brenda S. Batten

Notary Public

My commission expires October 22, 2013

AUG 11 2009







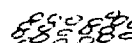
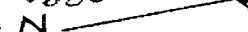



WV Department of
Environmental Protection

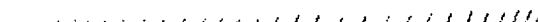



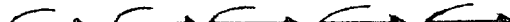
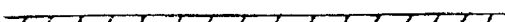

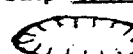
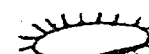
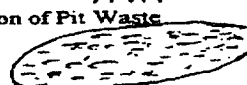


BRENDA S. BATTEN
Notary Public, State of Ohio
My Commission Expires Oct. 22, 2013

85-09833-H

LEGEND

Property Boundary 
 Road 
 Existing Fence 
 Planned Fence 
 Stream 
 Open Ditch 
 Rock 
 North 
 Buildings 
 Water wells 
 Drill site 

Diversion 
 Spring 
 Wet Spot 
 Drain Pipe with size in inches 
 Waterway 
 Cross Drain 
 Artificial Filter Strip 
 Pit: cut walls 
 Pit: compacted fill walls 
 Area for Land Application of Pit Waste 

Proposed Revegetation Treatment: Acres Disturbed ± 3 Acres Prevegetation pH 5.5Lime 2 Tons/acre or to correct to pH 6.5Fertilizer (10-20-20 or equivalent) 600 lbs/acre (500 lbs minimum)Mulch 90-100 Bales Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	30	Orchard Grass	30
Rye (Annual & BT)	35	Rye (Annual & BT)	35
Timothy (Climax)	25	Timothy (Climax)	25
Clover (Med. Red)	10	Clover (Med. Red.)	10

Attach:

Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: David Lee Carr

Comments: _____

Title: off gas inspectionDate: 8-07-09

Field Reviewed?

(☒) Yes
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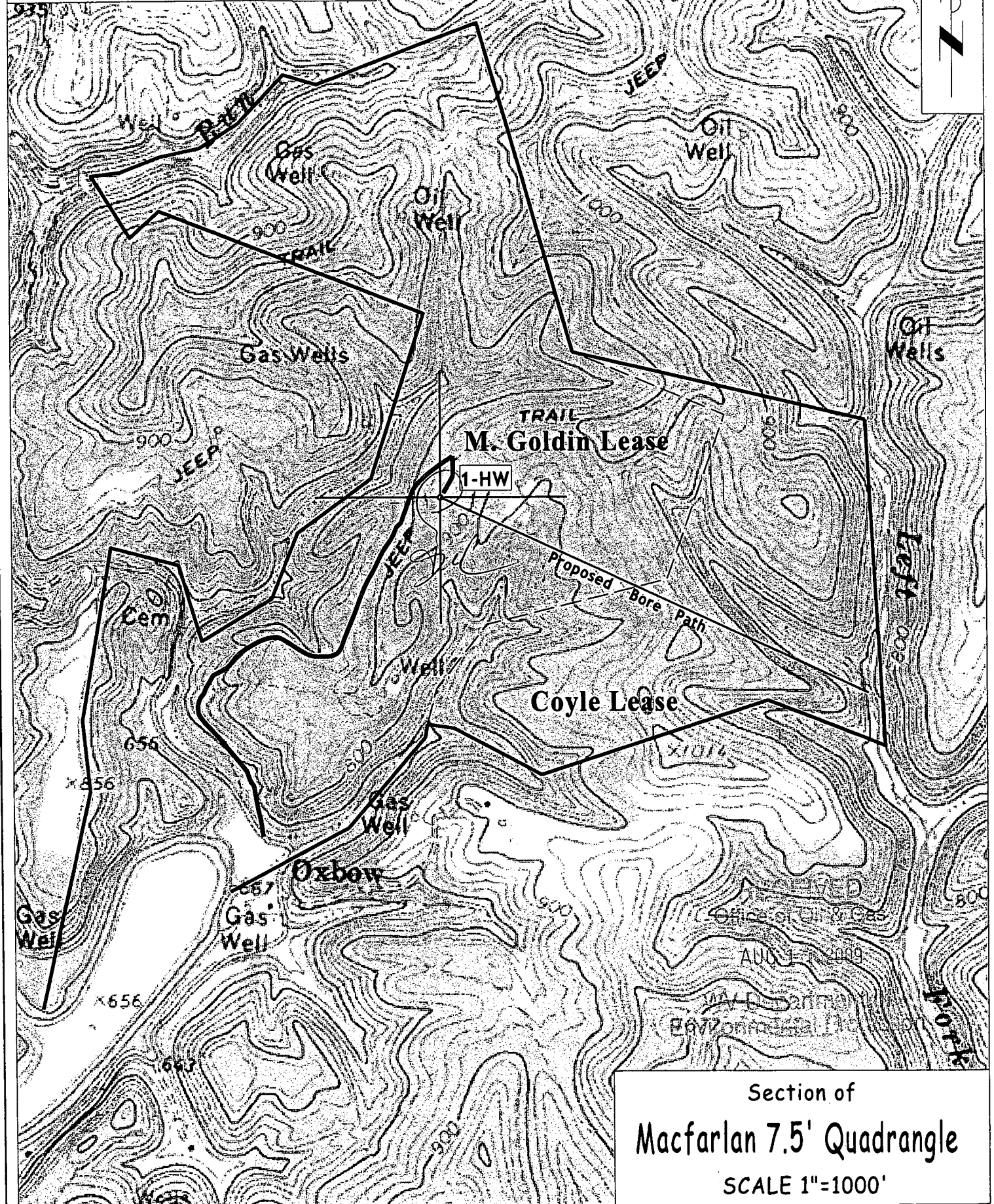
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22/3

8204855-11

SUBJECT WELL
Heartwood Forestland 1-HW



Section of
Macfarlan 7.5' Quadrangle
SCALE 1"=1000'

Reclamation Plan For: Heartwood Forestland 1-HW

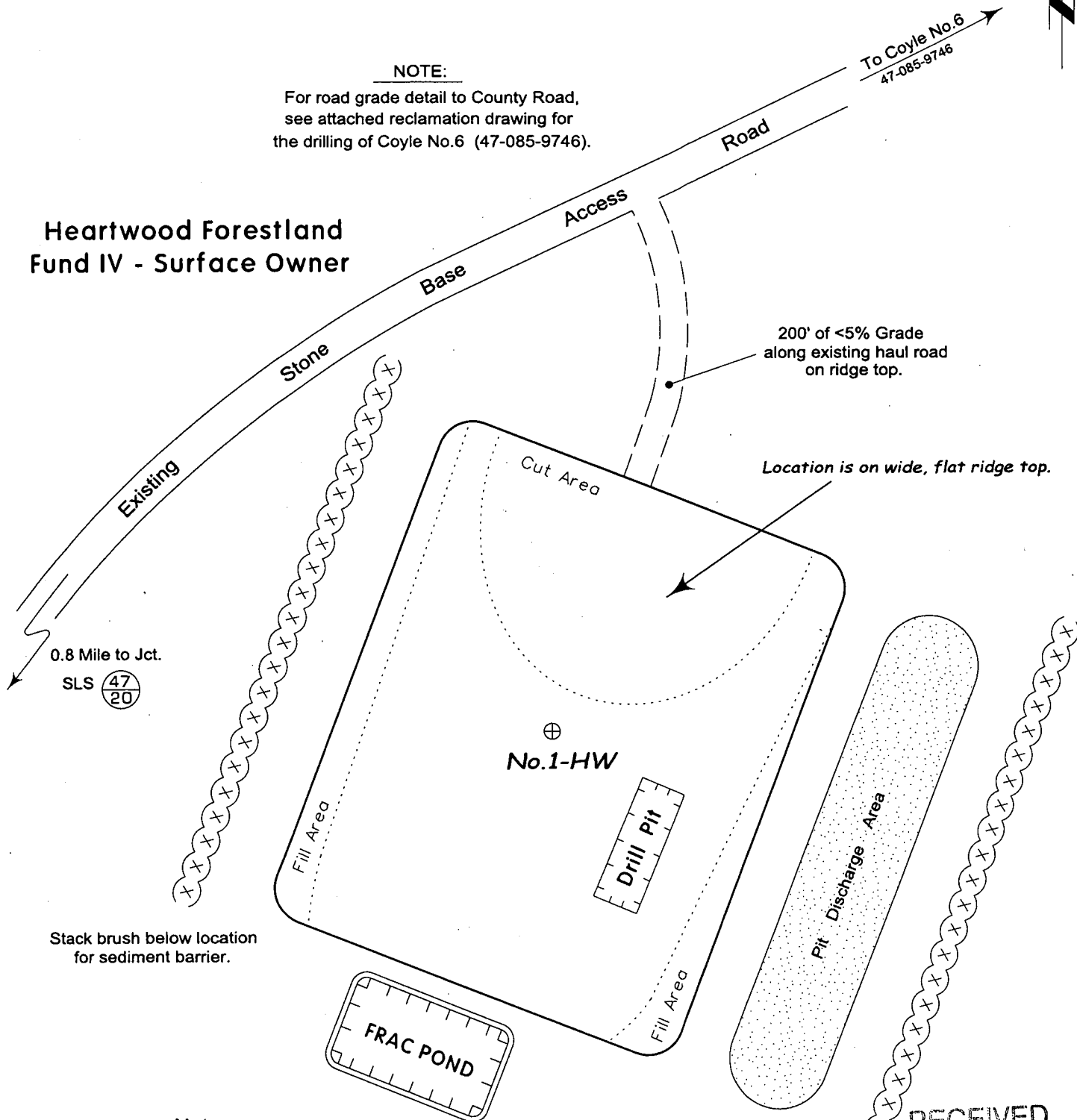
Murphy District, Ritchie County, WV

85-09833-H

NOTE:

For road grade detail to County Road,
see attached reclamation drawing for
the drilling of Coyle No.6 (47-085-9746).

Heartwood Forestland
Fund IV - Surface Owner



Notes:

- Requested permit is for drilling of new well.
- Scalp topsoil for re-dressing location during reclamation.
- Location of drill pit and frac pond may be changed based on as-built considerations.
- Maintain sediment barriers and drainage structures.
- All road grades <5% except as noted.
- Follow E&S guidelines as set forth in the WVDEP Erosion & Sediment Control Field Manual.

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Note: Drawing not to Scale

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N

See Attached Location Detail
for Heartwood Forestland No.1-HW

No.1-HW

EXISTING WELL &
TIMBERLAND ROAD
(STONE BASE)

Coyle #6

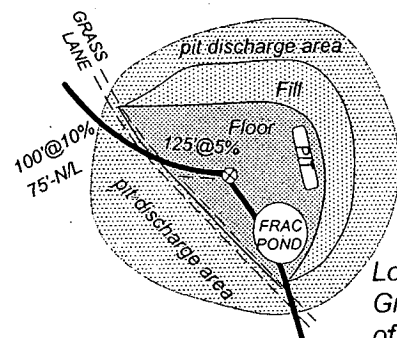
Graded
Management Lane
(Overgrown)

Grass Lane / Gas Line R/W

2" GAS LINE TO
MAX-BEE 5 WELL

Coyle #6
new
construction
area

Location is on knoll;
Grade floor to elevation
of existing grass lane;
Push fill away from lane.



- 1: Erosion and sediment control will be used as per West Virginia erosion and sediment field manual and/or directed by district inspector.
- 2: Cross drains and sediment control will be placed as needed.
- 3: Amount and size of culverts to be placed where needed.
- 4: Cut and stack all trees 6 inches and above.
- 5: Stockpile top soil for reclamation purposes.
- 6: Temporarily seed and mulch all slopes.

VIRCO, Inc.
Well: Coyle #6
Mead Westvaco, Co. 143 Acre Lease
Murphy District Ritchie County
West Virginia

85-09833-A

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WV Department of
Environmental Protection

250'@5%
525'-NL
400'@5%
275'@10%
150'@15%
125'@5%
250'@10%
625'-NL
250'@10%
LOCKED
PIPE



Surface Longitude - 81° 12' 26.3"

11,525'

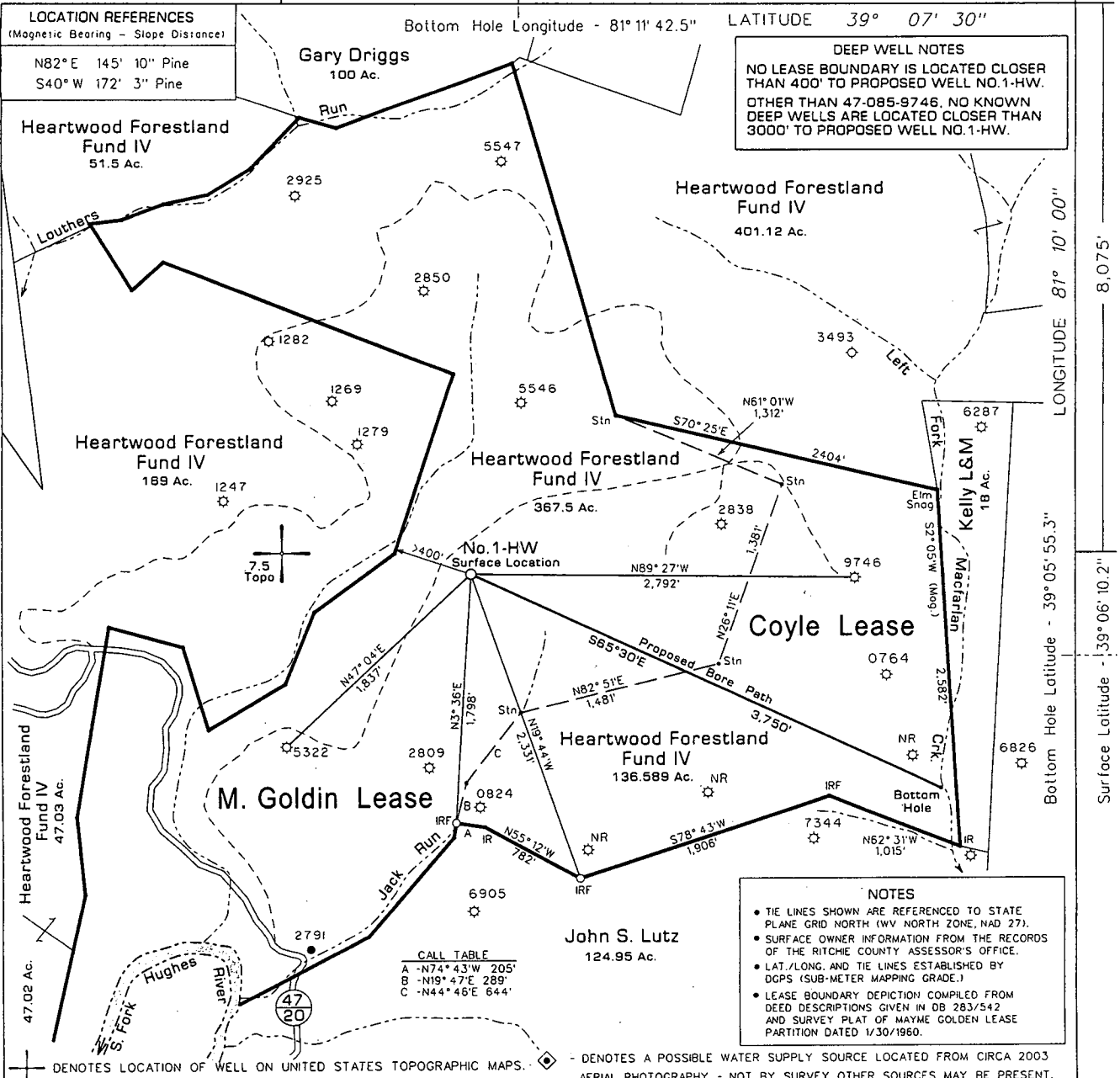
LOCATION REFERENCES
(Magnetic Bearing - Slope Distance)N82° E 145' 10" Pine
S40° W 172' 3" Pine

Bottom Hole Longitude - 81° 11' 42.5"

LATITUDE 39° 07' 30"

DEEP WELL NOTES

NO LEASE BOUNDARY IS LOCATED CLOSER THAN 400' TO PROPOSED WELL NO.1-HW. OTHER THAN 47-085-9746, NO KNOWN DEEP WELLS ARE LOCATED CLOSER THAN 3000' TO PROPOSED WELL NO.1-HW.



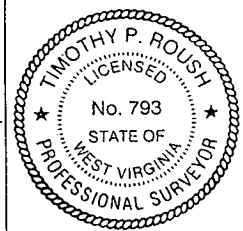
FILE NO. 115-01
DRAWING NO. 1
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY Sub-Meter
PROVEN SOURCE OF ELEVATION DGPS Survey

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.

(SIGNED)

TIMOTHY P. ROUSH

PS 793



WEST VIRGINIA
Division of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, West Virginia 25304



DATE August 4, 2009
FARM Heartwood Forestland 1-HW

API WELL NO. 47-085-09833H

WELL TYPE: OIL ☐ GAS ☒ LIQUID INJECTION ☐ WASTE DISPOSAL ☐
(IF "GAS") PRODUCTION ☒ STORAGE ☐ DEEP ☒ SHALLOW ☐ HORIZONTAL ☒
LOCATION: ELEVATION 909' WATERSHED South Fork of Hughes River
DISTRICT Murphy COUNTY Ritchie
QUADRANGLE Macfarlan 7.5'

SURFACE OWNER Heartwood Forestland Fund IV ACREAGE 367.5 Ac.
OIL & GAS ROYALTY OWNER R.A. Startzman, Mead Westvaco et al. LEASE ACREAGE 504.9 Ac.

LEASE NO.

PROPOSED WORK: DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒ PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG ☐
TARGET FORMATION Marcellus Shale ESTIMATED DEPTH 5,900 TVD
WELL OPERATOR VIRCO, Inc. DESIGNATED AGENT Lloyd Todd
ADDRESS P.O. Box 100 ADDRESS 610 E. Penn Ave.
Reno, Ohio 45773 Pennsboro, WV 26415

11,525'

Bottom Hole Longitude - 81° 11' 42.5"

LATITUDE $39^{\circ} 07' 30''$

N82° E 145' 10" Pine
S40° W 172' 3" Pine

Gary Driggs
100 Ac.

DEEP WELL NOTES

NO LEASE BOUNDARY IS LOCATED CLOSER THAN 400' TO PROPOSED WELL NO.1-HW. OTHER THAN 47-085-9746, NO KNOWN DEEP WELLS ARE LOCATED CLOSER THAN 3000' TO PROPOSED WELL NO.1-HW.

Heartwood Forestland
Fund IV
51.5 Ac.

Heartwood Forestland
Fund IV
401.12 Ac.

Heartwood Forestland
Fund IV
169 Ac. 1947

Heartwood Forestland
Fund IV

Coyle Lease

M. Goldin Lease

John S. Lutz
124.95 Ac.

NOTES

- THE LINES SHOWN ARE REFERENCED TO STATE PLANE GRID NORTH (WV NORTH ZONE, NAD 27).
- SURFACE OWNER INFORMATION FROM THE RECORDS OF THE RITCHIE COUNTY ASSESSOR'S OFFICE.
- LAT./LONG. AND THE LINES ESTABLISHED BY DGPS (SUB-METER MAPPING GRADE.)
- LEASE BOUNDARY DEPICTION COMPILED FROM DEED DESCRIPTIONS GIVEN IN DB 283/542 AND SURVEY PLAT OF MAYME GOLDEN LEASE PARTITION DATED 1/30/1960.

DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS:

- DENOTES A POSSIBLE WATER SUPPLY SOURCE LOCATED FROM CIRCA 2003
AERIAL PHOTOGRAPHY - NOT BY SURVEY. OTHER SOURCES MAY BE PRESENT

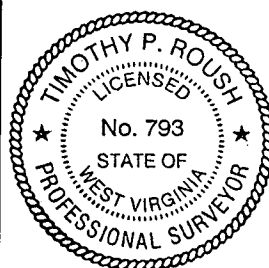
FILE NO. 115-01
DRAWING NO. 1
SCALE 1" = 1000'
MINIMUM DEGREE OF
ACCURACY Sub-Meter
PROVEN SOURCE OF
ELEVATION DGPS Survey

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.

(SIGNED)

TIMOTHY P. ROUSH

PS 79.3



WEST VIRGINIA

Division of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, West Virginia 25304



DATE August 4, 2009

FARM Heartwood Forestland 1-HW

API WELL NO.

47-085 - 09833 H

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___ HORIZONTAL X

LOCATION: ELEVATION 909' WATERSHED South Fork of Hughes River

DISTRICT Murphy COUNTY Ritchie

QUADRANGLE Macfarlan 7.5'

SURFACE OWNER Heartwood Forestland Fund IV ACREAGE 367.5 Ac.

OIL & GAS ROYALTY OWNER R.A. Startzman, Mead Westvaco et al LEASE ACREAGE 504.9 Ac.

LEASE NO.

PROPOSED WORK: DRILL X CONVERT___ DRILL DEEPER___ REDRILL___ FRACTURE OR
STIMULATE X PLUG OFF OLD FORMATION___ PERFORATE NEW
FORMATION___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY)___

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____

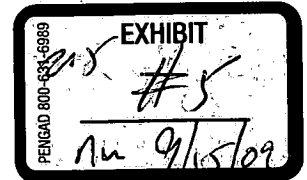
TARGET FORMATION Marcellus Shale ESTIMATED DEPTH 5,900 TVD

WELL OPERATOR VIRCO, Inc. DESIGNATED AGENT Lloyd Todd

ADDRESS P.O. Box 100 ADDRESS 610 E. Penn Ave.

Reno, Ohio 45773 Pennsboro, WV 26415

Affidavit Of Personal Service



State Of Ohio
County Of Washington

The undersigned, being first duly sworn, says that the undersigned served a true and complete copy of all sides of--

- (1) Notice on Form WW-2(A) X / WW-3(A) / WW-4(A) / WW-5(A) / WW-6(A)
(2) Application on Form WW-2(B) X / WW-3(B) / WW-4(B) / WW-5(B) / WW-6(B)
(3) Plat showing the well location on Form WW-6, and
(4) Construction and Reclamation Plan on Form WW-9

--all with respect to operator's Well No. # 1-HW located in Murphy
District, Ritchie County, West Virginia, upon the person or organization named--

Heartwood Forestland Fund IV
--by delivering the same in Wood County, State of West Virginia
on the 11th day of August, 2009 in the manner specified below.

[COMPLETE THE APPROPRIATE SECTION]

For an individual:

[] Handing it to him / her / or, because he / she / refused to take it when offered it, by leaving it in his / her / presence.

[] Handing it to a member of his or her family above the age of 16 years named who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible.

For a partnership:

[] Handing it to , a partner of the partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.

For a limited partnership:

[] Handing it to the general partner, named , or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.

For a corporation:

[X] Handing it to the corporation's employee X / officer / director / attorney in fact / named Greg Wilhelm

[Signature]
(Signature of person executing service)

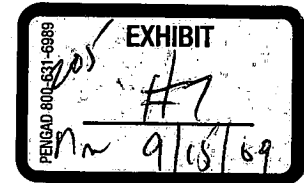
Taken, subscribed and sworn before me this 11th day of August, 2009.
My commission expires October 22, 2013

[Signature]
Notary Public

(AFFIX SEAL IF NOTARIZED OUTSIDE THE STATE)



BRENDA S. BATTEN
Notary Public, State of Ohio
My Commission Expires Oct. 22, 2013



PROPOSED WELL WORK
Heartwood Forestland # 1-HW
Murphy District, Ritchie County

1. Drill 20" hole to 30 feet.
2. Set 1 joint 16" Conductor Casing.
3. Drill 15" hole to 350 feet.
4. Set 300' of 11 3/4" (32 lb.) surface casing.
5. Cement 11 3/4" casing to surface with 155 sks. Class A cement.
6. Drill 11" hole to 2,050 feet.
7. Set 2,000' of 8 5/8" (23 lb.) Intermediate Casing.
8. Cement 8 5/8" casing to surface with 390 sks. Class A cement.
9. Drill 7 7/8" hole to 5,900' (approx. 100' into the Onondaga Limestone).
10. Run open-hole electric logs.
11. **Plug 7 7/8" hole back to 4,900' with Class A cement (300 sks.) through drillpipe.**
Let cement cure for 72 hours.
12. **Drill 7 7/8" hole directionally (10° deviation) from 5,000' to intersection with the upper portion of the Marcellus Shale.**
(Estimated length of curve = 800' - 1,000')
13. **Drill 7 7/8" lateral/horizontal hole 3,000' from the end of the curve in the Marcellus Shale.**
14. Run/Set @ 9,000' of 4 1/2" (11.6 lb. N-80) Production Casing.
15. Cement 4 1/2" casing back to 4,000 feet with 850 sks. of 50/50 poz-mix modified cement. Let cement cure for 5-7 days.
16. Run cased-hole electric logs.
17. Complete multiple stages (4-6) of the horizontal well utilizing frac plugs and frac balls. Each completion stage will consist of 10,000-12,000 bbls. of slick water and 300,000 to 500,000 lbs. of sand.
18. Drill out frac plugs and clean hole to total depth.
19. Flow well back.
20. Place well into production.
21. Haul completion fluids to disposal facility and begin wellsite reclamation.

NOTE!

The Onondaga Limestone will be penetrated solely for the purpose of running electrical logs through the Marcellus Formation. Once the open-hole logging is completed the wellbore will be cemented back to 4,900' through drillpipe. The Marcellus Formation will then be drilled horizontally.

8/12 Emailed to Kay
8/12 Called Duke Cowan

Raines, Cindy J

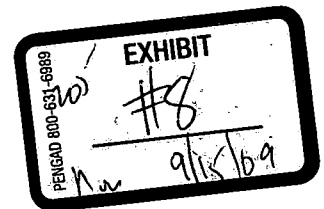
From: rick zickefoose [rick.zickefoose@vircoinc.us.com]
Sent: Wednesday, August 12, 2009 10:05 AM
To: Raines, Cindy J
Cc: ben.smeltzer@vircoinc.us.com
Subject: Permit # 47-085-09779

Ms. Raines,

VIRCO, Inc. requests permit number 47-085-09779 (Coyle #7 vertical Marcellus location) be canceled. If possible, please apply the permitting funds to our future permit applications.

Thank you,

Rick Zickefoose
Geologist
VIRCO, Inc.





HEARTWOOD
FORESTLAND
FUND IV
143 ACRE
LEASE

LONGITUDE 250° 43' W
LATITUDE 1° 30' N
MADE IN

39° 05' 53.3"
(39.09815)

A hand-drawn sketch map showing a triangular area. The vertices are marked with small circles. The top vertex is labeled "11" PINE". The bottom-left vertex is labeled "COYLE-7". The bottom-right vertex is labeled "7" PINE". The side connecting the top and bottom-left vertices is labeled "N 52 E 178' NL". The side connecting the top and bottom-right vertices is labeled "S 34 E 185' NL".

A circular professional seal for William R. Moser, a Licensed Professional Engineer in the State of West Virginia. The seal features the text "WILLIAM R. MOSER" at the top, "LICENSED" in the center, "STATE OF WEST VIRGINIA" at the bottom, and "PROFESSIONAL ENGINEER" around the perimeter. The license number "12345" is also visible.

DATE NOVEMBER 2 3 20 08
OPERATOR'S WELL NO. COYLE 7
API WELL NO. 47-085-09779
STATE COUNTY PERMIT

CANCELLED

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION MARCELLUS SHALE ESTIMATED DEPTH 5975'
 WELL OPERATOR VIRCO, INC. DESIGNATED AGENT LLOYD TORP
 ADDRESS PO. BOX 100 ADDRESS 610 E. PENN AVE.
RENO, OHIO PENNSYLVANIA, WV
45773 26415

FORM WW-8

Raines, Cindy J

From: Raines, Cindy J
Sent: Wednesday, August 12, 2009 8:26 AM
To: 'rick.zickefoose@vircoinc.us.com'
Subject: RE:

According to my spot, API: 47-085-09779 is also w/i 3,000' of the 1-HW location. Trying to spot the bh on my deep well map....are the bottom hole coordinances correct?

Cindy

From: rick zickefoose [mailto:rick.zickefoose@vircoinc.us.com]
Sent: Monday, August 10, 2009 1:54 PM
To: Raines, Cindy J
Subject: FW:

From: rick zickefoose [mailto:rick.zickefoose@vircoinc.us.com]
Sent: Monday, August 10, 2009 1:53 PM
To: 'Raines, Cindy J'
Subject: FW:

From: rick zickefoose [mailto:rick.zickefoose@vircoinc.us.com]
Sent: Monday, August 10, 2009 1:29 PM
To: 'Raines, Cindy J'
Cc: 'ben.smeltzer@vircoinc.us.com'; 'tom.palmer@vircoinc.us.com'
Subject:

Cindy,

Thanks for your help. I will bring the originals of the letter and plat down tomorrow morning.

Thanks again,

Rick

RECEIVED
 NOV 17 2008
 WV Department of
 Environmental Protection

DATE: November 11, 2008
 API #: 47-085-09746

State of West Virginia
 Department of Environmental Protection
 Office of Oil and Gas

Well Operator's Report of Well Work

Field name: Heartwood Forestland Operator Well No.: Covle # 6
 LOCATION: Elevation: 1005' GL, 1012' KB Quadrangle: Macfarlan
 District: Murphy County: Ritchie
 Latitude: 8100 Feet South of 39 Deg. 07 Min. 30 Sec.
 Longitude 8720 Feet West of 81 Deg. 10 Min. 00 Sec.

Company: Viking International Resources Co., Inc.

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: P.O. Box 100				
Reno, Ohio 45773	13 3/8"	32'	32'	Driven
Agent: Lloyd Todd				
Inspector: Dave Cowan	9 5/8"	336'	336'	To surface (136 cu. ft.)
Date Permit Issued: 8/25/2008				
Date Well Work Commenced: 9/22/2008				
Date Well Work Completed: 10/1/2008	7"	2199'	2199'	To surface (371 cu. ft.)
Verbal Plugging: N/A				
Date Permission granted on: N/A				
X-Rotary Cable Rig	4 1/2"	N/A	6040'	1800' Fill-up (235 cu. ft.)
Total Depth (feet): DTD=6050', 6078'				
Fresh Water Depth (ft.): Surface-200'				
Salt Water Depth (ft.): @ 1040'				
Is coal being mined in area (N/Y)? NO				
Coal Depths (ft.): Unknown				

OPEN FLOW DATA

Producing formation Marcellus Shale Pay zone depth (ft) 5833'-5905'
 Gas: Initial open flow 80 MCF/d Oil: Initial open flow -0- Bbl/d
 Final open flow 150 MCF/d Final open flow trace Bbl/d
 Time of open flow between initial and final tests 1 Week
 Static rock Pressure N/A psig (surface pressure) after N/A Hours

Second producing formation _____ Pay zone depth (ft) _____
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow _____ MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: Ben Smeltzer
 By: Ben Smeltzer-Geologist
 Date: November 11, 2008

Well Name: Coyle # 6

Permit # 47-085-09746

County: Ritchie

District: Murphy

Perforation: 99 holes from 5834' to 5905'

Stimulation: Slickwater Frac with Sand

Initial Breakdown Pressure = 1000 psi

Total Fluid Volume= 17,583 bbls

Total Proppant Volume= 310,000 lbs. (150m 80/100, 160m 20/40)

Total Acid Volume= 2,000 gals. 15% HCL

Average Treating Pressure= 3890 psi

Average Treating Rate= 73 BPM

Geologic Formations: ISIP= 1062 psi 5 min. SIP= 863 psi 10 min. SIP= 823 psi

Formation Name	Depths	Lithology	Shows/Remarks
	Surface-1030'	Shale, Slst., Ss.	
2 nd Cow Run	1030'-1080'	Sandstone, tr. Sh.	
	1080'-1283'	Shale, Slst., tr. Coal	
1 st Salt Sand	1283'-1312'	Sandstone	
	1312'-1361'	Shale, Slst.	
2 nd Salt Sand	1361'-1430'	Sandstone	
	1430'-1486'	Shale, Slst., tr. Coal	
3 rd Salt Sand	1486'-1523'	Sandstone, Slst.	
	1523'-1742'	Shale, Slst., Ss., tr. Coal	Maxton Stray 1678'-1702'
Maxton	1742'-1848'	Sandstone, tr. Sh.	Good show oil & gas @ 1790'
	1848'-1850'	Shale	
Greenbrier	1850'-1978'	Limestone, tr. Ss.	
	1978'-1982'	Shale	
Big Injun	1982'-2047'	Sandstone, tr. Sh.	Show gas @ 2000'
	2047'-2404'	Shale, Siltstone	
Berea	2404'-2414'	Siltstone, Shale	No shows
	2414'-2510'	Siltstone, Shale	
Gantz	2510'-2562'	Siltstone, Shale	
	2562'-2794'	Shale, Siltstone	
Gordon	2794'-2804'	Sandstone, Siltstone	Well developed
	2804'-3667'	Shale, Siltstone	Top Huron Shale @ 3624'
Speechley	3667'-3737'	Shale, Siltstone	
	3737'-3844'	Shale, Siltstone	
Balltown	3844'-4004'	Siltstone, Shale	Show gas @ 3910'
	4004'-4462'	Shale, Siltstone	Base Huron Shale @ 4462'
Upper Olentangy	4462'-5447'	Shale, Siltstone	
Lower Olentangy	5447'-5905'	Shale, Siltstone, org, Shale	Show gas
Onondaga	5905'-6078'	Limestone, tr. Chert	
	6040'		Driller's T.D.= 6050'
			Logger's T.D.= 6078'
NOTE!!			
Rhinestreet Shale	5447'-5642'	Shale, Organic Shale	Slight show of gas
Marcellus Shale	5833'-5905'	Organic Shale, tr. Shale	Show gas @ 5880'

RECEIVED
Office of Oil & Gas
NOV 17 2008

DATE: November 11, 2008
API #: 47-085-09746 -

WV Department of
Environmental Protection

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Form name: Heartwood Forestland Operator Well No.: Coyle # 6
LOCATION: Elevation: 1005' GL, 1012' KB Quadrangle: Macfarlan

District: Murphy County: Ritchie
Latitude: 8100 Feet South of 39 Deg. 07 Min. 30 Sec.
Longitude 8720 Feet West of 81 Deg. 10 Min. 00 Sec.

Company: Viking International Resources Co., Inc.

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Address: P.O. Box 100				
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Agent: Lloyd Todd				
Inspector: Dave Cowan	9 5/8"	336'	336'	To surface (136 cu. ft.)
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Verbal Plugging: N/A				
Date Permission granted on: N/A				
X-Rotary Cable Rig	4 1/2"	N/A	6040'	1800' Fill-up (235 cu. ft.)
Total Depth (feet): DTD=6050', 6078'				
Fresh Water Depth (ft.): Surface-200'				
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EXHIBIT
2003 #6
9/15/09



GAMMA RAY
CEMENT BOND
CASING COLLARS
VDL

Company VIKING INTERNATIONAL
Well COYLE #6
Field
County RITCHIE
State W.V.

Company VIKING INTERNATIONAL RESOURCES INC.

Well COYLE #6

Field

County RITCHIE

State W.V.

Location: API #: 47-085-09746

Other Services

SEC	TWP	RGE	Elevation
Permanent Datum	G.L.		1005
Log Measured From	G.L.		K.B. 1012
Drilling Measured From	K.B.		D.F. 1010
			G.L. 1005

Date	OCT.13,2008
Run Number	ONE
Depth Driller	6050
Depth Logger	6036
Bottom Logged Interval	6032
Top Log Interval	4300
Open Hole Size	6.500
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	N/A
Estimated Cement Top	4518
Time Well Ready	3:15 P.M.
Time Logger on Bottom	2:00P.M.
Equipment Number	105
Location	SISSONVILLE
Recorded By	MR.WESTERFIELD
Witnessed By	MR.B.SMELTZER

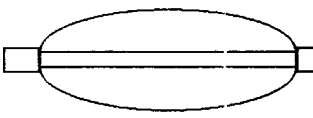
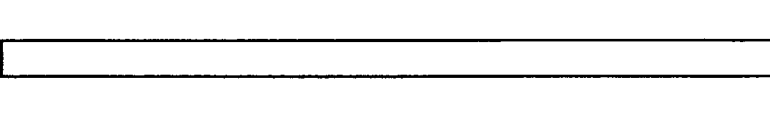
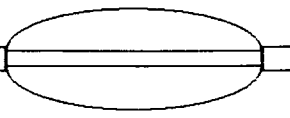
Borehole Record				Casing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE				7.000	17.	SURF.	2199
				4.500	10.5	SURF.	T.D.

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

THANK YOU FOR USING FISHER WELL SURVEYS !!!!!

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			Comprobe Comprobe Centralizer	2.27	1.69	10.00
			CBLCMPB-Comprobe (CMPB_01) Comprobe bBond	10.56	2.13	40.00
WVF3FT	4.38		Comprobe Comprobe Centralizer	2.27	1.69	10.00

Dataset: virco6.db: field/well/run2/pass5
Total Length: 15.10 ft
Total Weight: 60.00 lb
O.D.: 2.13 in



MAIN PASS